

INTERACTIONS OF EXPERTS AND THE PUBLIC

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Let me begin with an unpleasant reality for both sides. When it comes to radiation, there are many people who do not trust or believe you. They also do not trust me and my colleagues. They do not believe what we say, write, or broadcast. The people are afraid, some would say irrationally, and perhaps in many cases this is true. However, radiation, by its nature, holds a special place in man's closet of fears. It is, of course, associated with nuclear weapons, and many of us have grown up watching the film of the atomic bomb tests and the mushroom-shaped cloud coming off the water with ships disappearing in it. Nuclear weapons bring to mind Hiroshima, Nagasaki, the dying sheep of Utah, and the alleged incidence of increased cancer.

People who do not work with radiation and are not experts in it are aware that it is there. It is silent, you cannot see it, cannot taste it, cannot smell it. It is what David Salisbury, who used to work for the Christian Science Monitor, described as that "mysterious form of castration."¹ People do not really understand the consequences and risks of radiation exposure but they tend to know that radiation can kill. They know very little about what levels are lethal.

Ronald Doctor, who is a psychologist at California State University, Northridge, related some of his observations to me (personal communication). He has watched as people driving through southern California near a nuclear power plant will roll up their windows before they pass the plant and roll them down afterwards. This is not a very rational or trusting thing to do. At Three Mile Island, no mass evacuation was ordered, although the governor asked that pregnant women and also children under age 5, living within a five-mile area, leave. And yet 144,000 people in the vicinity left for the better part of a week.¹ This mass exodus occurred without many people being aware it was going on.

After the Chernobyl explosion, we in this country were assured that there was no danger of radiation fallout. Yet in California, there were reports of hoarding of milk. And the Environmental Protection Agency received telephone calls from people wanting to know if they should take potassium iodide² and if they should keep their children indoors. Thus, when a radiation emergency occurs, whether it is as significant as the one at Three Mile Island or a spill on the highway, media people will respond. I will leave it to you to figure out what a radiation emergency without the media would be like.

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ROLE OF THE MEDIA

We in the press are the conduit to the public. We are the providers of information. And it is to us that the people turn. It may be an imperfect system, but in the United States it is the system we work with. And when there is a major tragedy, people instantly turn to the press.

Reporters are going to bring a great diversity of backgrounds, technical understanding, perceptions, and their own fears to any story involving a radiation release. At Three Mile Island³ a few reporters were skilled science and energy writers, but most were what are known as "firemen," reporters whom the editors or assignment people feel they can send into any story and get a good solid accounting. Sometimes it was whoever was available. Paul Magnussen, who was a general assignment reporter for the Detroit Free Press, said he was assigned because he was the first one back from lunch.¹ Curtis Wilkie, who is a very skilled political reporter for the Boston Globe, was sent. He said he knew he was in trouble when he heard the word "meltdown" and did not have any idea of what it meant.¹

Reporters are rarely experts at anything, except maybe reporting, and must rely on experts. They must talk to a lot of people and make judgments. One of the hardest is, whom do you believe? Radiation releases tend to bring strange people out of the woodwork on both sides. And it is sometimes a process of trying to distinguish who has a legitimate grievance from who is a kook, along with trying to gather some solid information along the way.

Reporters do not view their job as trying to protect industry or government or as trying to reassure the public, which is one thing that people in public health wish we would do more. But I think there are times when reassuring the public would be a disservice. As we see it, the real job is to get the story as accurately and as swiftly as possible. In confusing situations, errors are made. There is often confusion and ignorance, and often we are in the position of having been told different things by different people that are in conflict.

One of the things that bothers a lot of us in the press is the question of the ultimate number of deaths arising out of the Chernobyl catastrophe. It was clear early on that perhaps there would be substantial casualties in the long run. The Soviet report in August made no mention of numbers. The experts on the scene were quoted in the press as estimating anywhere from 5,000 to 40,000. Dr. Robert Gale, in a September teleconference, suggested 2,500 to 25,000, depending on the type of estimates or calculations you used. Thomas Cochran of the National Resources Defense Council and John Gofman have estimated around 250,000.³ In truth, no one knows.

A problem that has yet to be settled is the threshold issue—although any scientist I have talked with always had an opinion on whether there is or is not a threshold. Radiation hormesis is a

fascinating concept. As far as I know, there is no solid evidence that it is, in fact, possible that a little bit of a bad thing is good for you, at least in the form of radiation. So if the experts cannot agree, the press and the public have a problem in determining what is going on.

At Three Mile Island, the press walked into total informational chaos. The Nuclear Regulatory Commission, the company, and the press were not prepared for that emergency, organizationally or psychologically. The major problem at Three Mile Island was that the official sources were often confused and simply ignorant about what was going on. Shortly after word got out that there had been a general emergency at Metropolitan Edison, the chief information officer told a radio reporter that it was just a "red tape type of thing" required by the NRC.⁴ In fact, the plant's specific plan defined a general emergency as an "incident that has the potential for serious radiological consequences to the health and safety of the general public."⁴

Metropolitan Edison and the NRC were trying very hard to put their best foot forward. At the site, Metropolitan Edison officials were admitting there had been radiation releases, but until noon, public information people at headquarters were denying there had been any releases. They were not purposely lying. The problem was that nobody bothered to tell the people in Reading that there had been radiation releases, and when they tried to call the plant to talk to officials from the company, they were unable to get through. There was a total breakdown of communications. Because of a series of foul-ups like this, Metropolitan Edison and the NRC lost credibility within 48 hours.

Harold Denton, Ph.D., then was appointed as the sole technical advisor and briefer. This pleased a lot of people in the industry but distressed the press. In effect, it led to a small cover-up at the end when it was agreed among the NRC officials that they would hedge very much on the fact that it had been the NRC who had created the scare about the gas bubble inside the reactor.⁴ And indeed, there had been no danger of an explosion of any kind in the reactor.

WORKING WITH THE MEDIA

So what happens when any organization has to deal with the media? Obviously, an informational structure staffed by knowledgeable people is needed in advance to provide timely and accurate information. This staff has to be respected and listened to within the organization, whether it is a medical school, hospital, or power facility.

I served on the staff of the President's Commission on the Accident at Three Mile Island as the senior writer. When our interviewers and lawyers asked Blaine Fabian, who was the manager of communications services for Metropolitan Edison, "Why didn't you say something? Why didn't you tell your people that they were making mistakes?" his response was that he did not feel that in his position he could tell a vice president of Metropolitan Edison anything.

In the informational structure, you must have people who are technically competent to assist in briefing. Such structures are going to be needed badly by anyone who is or may be a spokesperson in a radiation emergency. In the nuclear power area, things supposedly have been improved. Personally, I am afraid that we will probably have the opportunity to find out.

However, even the best laid plans for getting information out may fail. NASA had an excellent plan, but it was never implemented when the Challenger exploded. The agency closed in within itself and violated its own program for informing the public.

Based on my coverage of Chernobyl, I think that the professional groups, the health groups, and the trade groups were much better prepared to provide technical and explanatory information than they were at the time of the Three Mile Island episode. The federal government, unfortunately, tried to close off information within itself. When we sought information, for instance, from the Agriculture Department on the effects of radiation in the food chain, we were told that they could not provide it for they were not allowed to "speculate." All the information was to be channeled through a task force headed by Harold Denton, and the task force was staffed by EPA public affairs people for communicating with the press. As a result, we all looked for other people to serve as a source of information.

Those briefing the media must have direct access to the people who are making decisions to get up-to-date information. Technical experts, not just information people, should be available to assist in briefing the press. One thing I suggest is never overestimate or underestimate the knowledge of a reporter. There are some people within science and medicine who tend to be very condescending to people who are not fellow experts. And, frankly, reporters sometimes get very rankled.

Explaining terms is very important. Radiation is an extraordinarily difficult concept. Every time I sit down to write something on radiation, I have to reacquaint myself with the meanings of the various words. Trying to explain the meaning of a curie is an extraordinarily difficult thing. Whenever possible, the amount of radiation should be explained in detail and some attempt made to put it into a context. One of the standard concepts, of course, is that of natural background radiation. This is helpful, but I am not sure that we will ever really solve the problem of explaining radiation in press accounts.

Honesty is the best policy, I believe. Lying--even if you are not but you are perceived to be lying--ruins communication. Saying "I don't know" is better than a lie. It may be embarrassing, but in the end it is less damaging.

The end product of encounters between experts and the press in nuclear radiation releases can be very longlasting. Metropolitan Edison has never recovered from it and the NRC still has problems. It helps to understand the deadline pressure that the media works under. Gene Fowler once described journalism as history shot on the wing. The press wants and, in a sense, needs quick answers. It is not a situation that scientists and engineers are very comfortable with, and yet the press will be there and they will be pressing for information.

Finally, I suggest that people be as precise as possible. We have a lot of problems trying to deal with ambiguities, uncertainties, large numbers, and ranges. Some of the problems evolve because editors want a more defined number and simply change the copy. All I can say is that the press will be there if you have an emergency of any lasting consequences. And people will be very concerned and worried, and the thing we both can do is to try to supply information that is as clear and accurate as possible.

References

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